Idaho BLM Geographic Information Systems for Public Land Resources

October 23, 2003 Idaho Geospatial Users Conference

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BLM FY04 GIS Agenda

- GIS Committees
- GIS & Resources Annual Meeting in Riggins
- Enterprise GIS
- Projects Around the State

Idaho BLM GIS Coordination Committee

- 2001 to present
- Meet quarterly
- Monthly teleconference
- Members from
  - Three District Coordinators
  - ISO GIS Supervisor
  - ISO Technical Advisor
- Purpose:
  - Coordinate projects of statewide importance
  - Provide a unified voice to advise Management
- Charter is being finalized

GIS & Resources Annual Meeting in Riggins

October 14
Remote Sensing Training NTC

October 15
WO and Idaho 12 Resources
Presentations & Discussions

October 16
District & State Idaho GIS
Presentations & Discussions

October 17
Metadata training and Field
Trip to Seven Devils

Enterprise GIS is an International Effort

- GIS is less than 30 years old
- All brands of GIS software
- No to files; yes to one database
- IRM maintenance of GIS like other db
- Private businesses, local, state and federal governments

BLM is a Leader in Planning for Enterprise GIS

- Architecture design plan is written.
- The plan is a model for the GIS industry.
- The plan is being implemented:
  - The Department of the Interior purchased the enterprise software for all staff (FY03-FY05)

Hardware & Software
Central vs. Scattered

Consolidated State Operations   National Programs

ArcSDE

ArcSDE

Field Project Data   Field Project Data

Local Files

Local Files

Consolidation means less to Buy, Maintain, Support

Enterprise GIS is a Necessary Investment

- There is no other option for GIS
- Standard data will be reliable and accessible
- One database will help ensure quality
- Data steward partnership can ensure security
- Resources can better compare information on any piece of ground
- Costs will decline for labor, hardware and training

The BLM Enterprise GIS Plan is Struggling

- Hardware not purchased FY03; requested FY05.
- BLM National Technical Support person not funded; left last March.
- BLM is allowed ten, not forty staff access to professional technical support.
- The training removed from the plan
- More burden on the States!

Idaho BLM GIS
Enterprise GIS Hardware Vision

- **One Database Server with one database in the ISO updated by the Field**
  - no duplicate Servers in each Field Office
  - Save money in hardware
  - Save time in IRM support
  - Most BLM State Offices purchased the server at $60k.
  - Idaho has purchased the Intranet Map Server at $15k (necessitated by resource litigation).

- **Field will have a server for project data and backup**
  - Check data out of the ISO server, update in the field, send it back to main server

Idaho BLM GIS
Enterprise GIS Database Vision

- **One Corporate Database built to standards for accessibility, integrity and security**
  - Not 14 ways to spell 4WD
  - Not 150 range allotment files on 85 computers statewide
  - Allow Users to compare resource data for planning
  - Less labor for FOIA and data sharing
  - Allow Data Stewards to check and reconcile data errors

- **Field will have a database for project data and backup**
  - Check data out of the library, update in the field, send it back to main database

Idaho BLM GIS
Corporate Database Progress

❑ State Corporate Drive structure designed and posted statewide data in 2002 and 2003

❑ Inventory, Metadata and posting of Corporate Data from all three districts complete by Dec 2003

❑ Idaho is meeting WO requirement to post all metadata on BLM site

❑ Statewide conversion to Surveyors Datum - NAD 1983 complete by May 2004

Idaho BLM GIS
GIS & Data Steward Team

- GIS Staff Should Not be Data Stewards!
- Team will insure data quality in two ways: geography and information
- Team can ensure GIS costs are planned
- Team determine data sensitivity and release

Sage Grouse Habitat Planning Map 2002

Idaho BLM GIS
BLM Authorized trainers

❑ Old GIS users will need re-training
  - ❑ Geodatabase? No More Coverages?
❑ New GIS users will need ArcGIS Training
  - ❑ Automated Master Title Plats? Intranet Maps?
❑ IRM will need training to support staff
  - ❑ ArcView 3? ArcView 8? ArcGIS? ArcInfo? SDE? IMS?
❑ Save over $60,000 annually by staff trainers

NILS
National Integrated Land System

Idaho BLM GIS
Serves the Public, Not the Terrorists

- FOIA or Agreement required for any data released from BLM.
    - All data released must have federal metadata and be cleared by the data steward for release
- Idaho is developing Stand Alone Data Share Agreements with all non BLM Agencies in the State
- Idaho is routing an MOU for Internet dissemination
    - Geospatial One Stop initiative
    - Save Idaho BLM GIS staff hours
- Idaho is developing a policy to release Internet data responsibly

FY04 Resource Management Plans

Coeur d'Alene

Cottonwood

Pocatello

Birds of Prey

Craters of the Moon

Bruneau

Shoshone

Areas Addressed in Resource Management Plans

- Grazing
- Lands and Realty
- Recreation
- Socio-Economic
- Special Designations
- Tribal and Cultural
- Vegetation and Upland Vegetation
- Wildlife
- Idaho Army National Guard
- Air Quality
- Hazardous Materials
- Fluid Minerals
- Visual Resources
- Locatable Minerals
- Saleable Minerals
- Environmental Justice

30 Years of Cultural Resource Management Inventory

- Ca. 15,000 archaeological and historical properties on BLM lands
- 6,700 Cultural Resource Inventories completed on BLM
- 1 acre to 10,000 + acres
- Ca. 1.8 million acres (80% of BLM lands remain to be examined for cultural resources)
- Maps should include subsurface 3d

Boulder Bear Management Unit
Coeur d'Alene Field Office

Introduction

Interagency Grizzly Bear Committee classification of road types (IGBC) values from the roads database were used to locate the railroads (10), open to motorized vehicles (4) and restricted (2) roads

Security habitat includes areas surrounding restricted roads (e.g. they are controlled by a gate), while core does not

Roads are buffered to 500 meters either side of centerline and anything outside of the buffer is considered bear habitat

Buffer polygons were combined with the ownership coverage to calculate acres of ownership for both core and security habitat

Methods

Core Habitat: IGBC = 10,4,2
Security Habitat: IGBC = 10,4

Roads that affect core habitat are highlighted in blue on map and table

Results

Core Habitat

Security Habitat Spur Road Open

Security Habitat Spur Road Closed

Acreage was calculated for three scenarios
(1) Open spur roads for a timber sale in parcel 3
(2) Close spur roads after harvest
(3) Close all roads in parcel 3
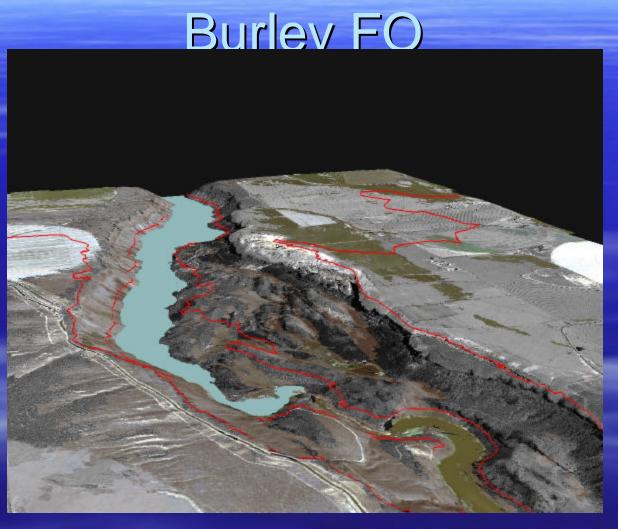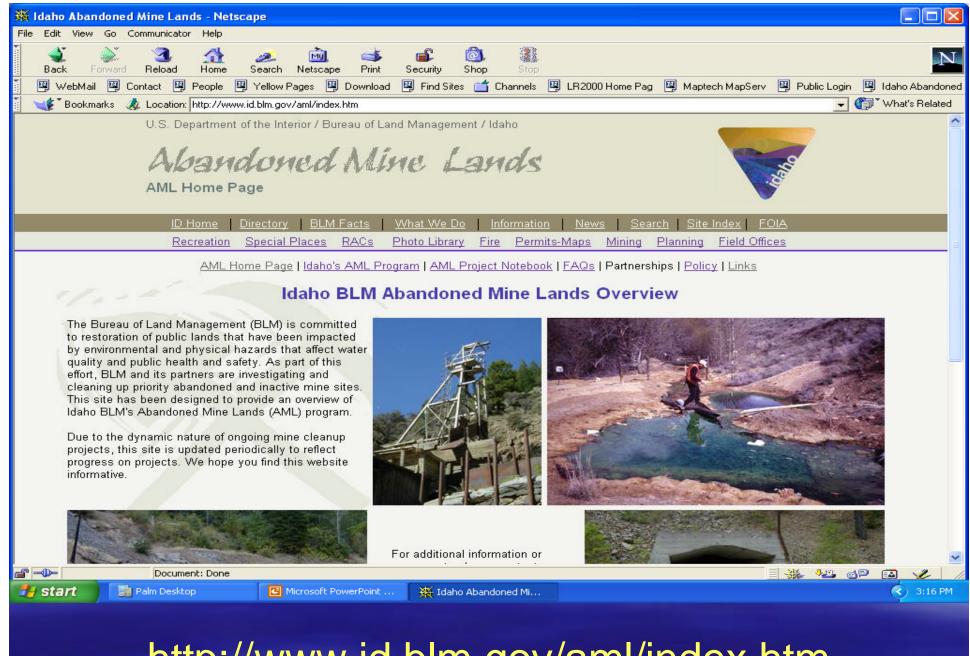
Approx. 8500 Mines and Prospects in Idaho

Themes:
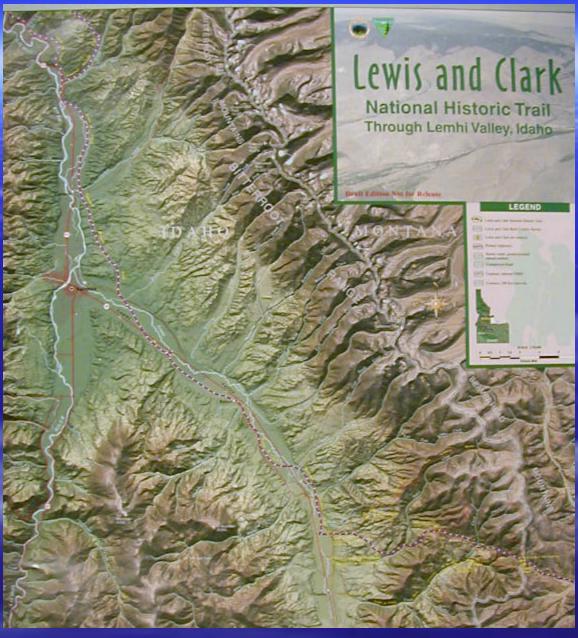
-Land Ownership

-HUC4 Subbasins

Lidar of Blue Gill Landslide – Salmon Falls Creek, near Buhl, Burley FO

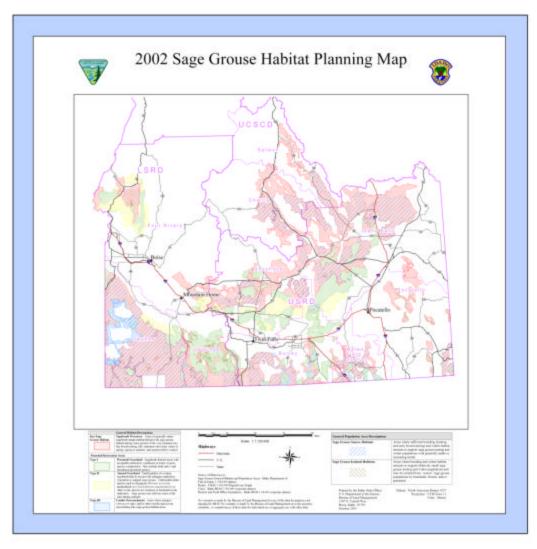http://www.id.blm.gov/aml/index.htm

Lewis and Clark Trail - Geology

Shaded Relief Map by John Fairlie

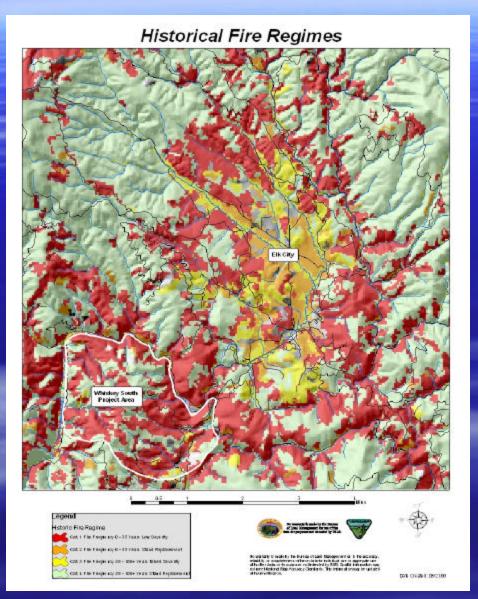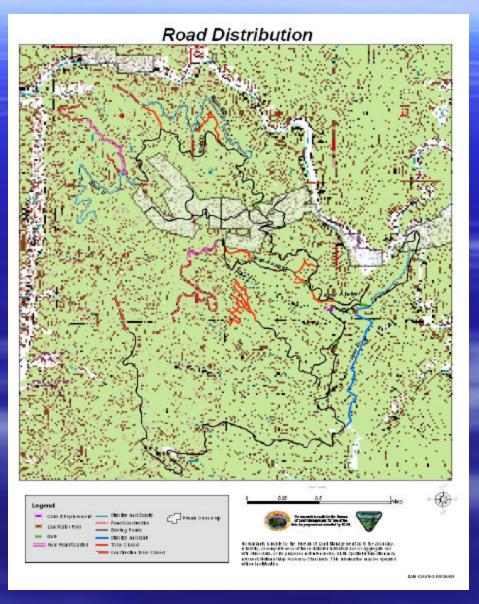# Sage Grouse Planning

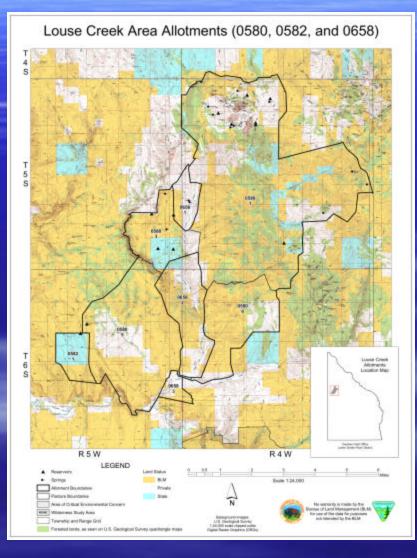2002 Sage Grouse Habitat Planning Map

Mountain Pine Beetle

Elk City Timber Analysis Maps

Range & Grazing Permits

Louse Creek Area Allotments (0580, 0582, and 0658)
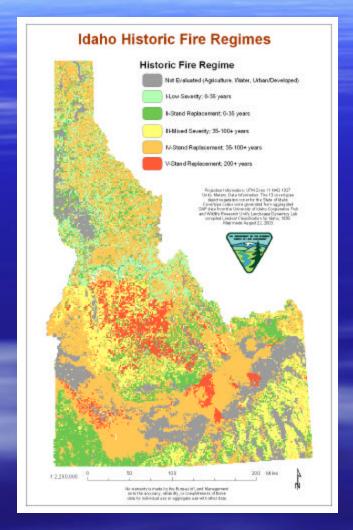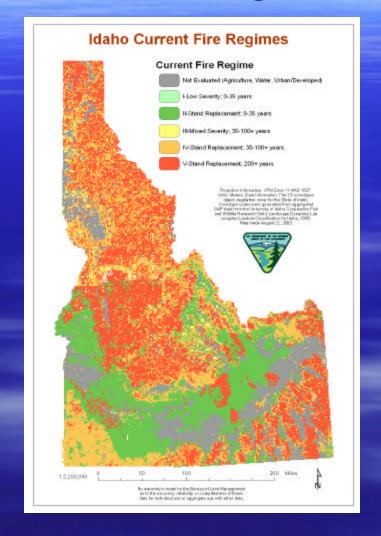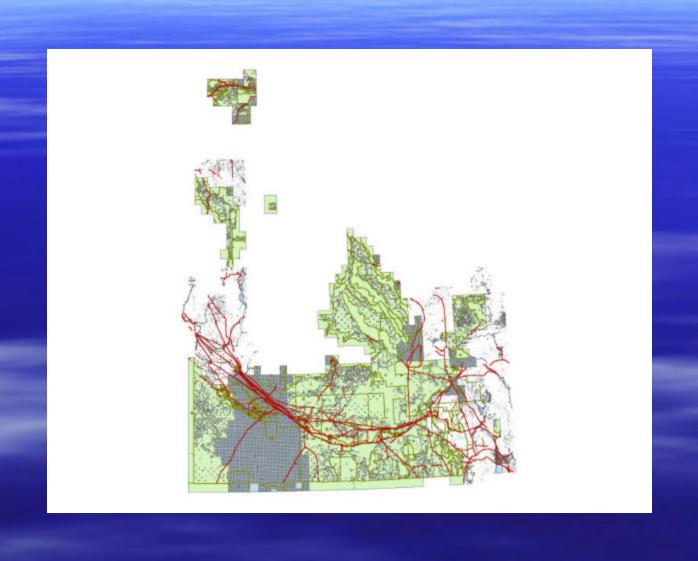
Idaho's Top Fire GIS Priority Layers

- Historic Fire Occurrence (point)
- Historic Fire Perimeters (polygon)
- Vegetation Cover Types
- Fire Condition Class
- Fuel Model Polygons
- Historic & Current Fire Regimes
- Communities at Risk
- Fire Weather Zones and Stations
- Flight Hazards
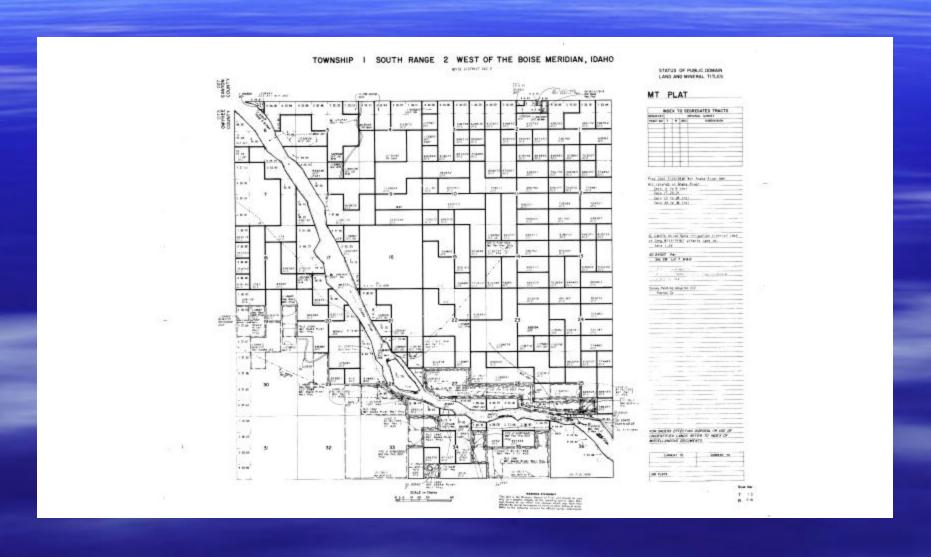
Historic and Current Fire Regimes

1:24k Base Data & 6th HUC

Scan and Georeference of Master Title Plats

Summary

- Idaho BLM GIS Coordinates Field projects Statewide
- BLM is planning for Enterprise GIS
- Due to lack of funding, we may experience problems in our daily Idaho BLM GIS work
- Idaho BLM is on track with data standards, training, data sharing and stewardship